

Patent Claims

1. A membrane for removing proteases from liquid, comprising a microporous membrane body, **characterized by the fact** that inhibitors binding selectively with proteases are coupled with chemically activated groups to the membrane bodies (7, 8, 9, 10).
2. The membrane according to claim 1, **characterized by the fact** that an inhibitor binding with acidic proteases is coupled to the membrane body (7).
3. The membrane according to claim 2, **characterized by the fact** that pepstatin is coupled to the membrane body (7).
4. The membrane according to claim 1 to 3, **characterized by the fact** that an inhibitor binding with metalloproteases is coupled to the membrane body (8).
5. The membrane according to claim 4, **characterized by the fact** that bestatin, diprotin or EDTA is coupled to the membrane body (8).
6. The membrane according to claim 1 through 5, **characterized by the fact** that an inhibitor binding with cysteine proteases is coupled to the membrane body (9).
7. The membrane according to claim 6, **characterized by the fact** that antipain, chymostatin, leupeptin or E64 is coupled to the membrane body (9).

8. The membrane according to claim 1 through 7, **characterized by the fact** that an inhibitor binding with serine proteases is coupled to the membrane body (10).

9. The membrane according to claim 8, **characterized by the fact** that TLCK or p-aminobenzamidine is coupled to the membrane body (10).

10. Device for removing proteases from biological liquids and pharmaceutical solutions with a plurality of connected membranes, **characterized by the fact** that the membranes (3, 4, 5, 6) are constructed according to one of the claims 1 through 9.

11. Device according to claim 10, **characterized by the fact** that each of the individual membranes (3, 4, 5, 6) is provided with a membrane body (7, 8, 9, 10) having another coupled inhibitor.

12. The device according to the claim 10 or 11, **characterized by the fact** that the membranes (3, 4, 5, 6) are built into a suitable housing (2) enabling a sequential flow through the membranes (3, 4, 5, 6).

13. A method for removing proteases from biological liquids and pharmaceutical solutions with microfiltration using microporous activated membranes, **characterized by the fact** that the inhibitors are coupled with chemically activated groups to the membranes (3, 4, 5, 6), wherein the proteases are removed with selective binding.